

### **REMARKS**

In response to the Office Action mailed 14 December 2005, the Applicant respectfully requests the Examiner to reconsider the above-captioned application in view of the above amendments and the following comments.

Claims 1-22 were previously pending in this application. Claim 15 has been amended, and all Claims remain pending. The Examiner has rejected all pending Claims as being unpatentable over U.S. Patent No. 6,785,513 to Sivaprakasam (hereinafter “the ‘513 patent”). As will be discussed in greater detail below, the Applicant respectfully traverses this rejection and submits the following remarks in support of the patentability of the amended pending claims.

#### **Rejection of Claims under 35 U.S.C. §102(e)**

The Examiner has rejected independent Claims 1 and 14, as well as Claims 2-13 and 15-22, which depend from Claims 1 and 14, as being unpatentable over the ‘513 patent. Applicant respectfully disagrees with this rejection and notes that the claims recite elements not disclosed in the ‘513 patent, and that therefore the reference does not render the claimed subject matter unpatentable.

#### **Rejection of Claims 8 and 14**

The Examiner has rejected Claims 8 and 14 over the ‘513 patent. The Applicant notes that both of these claims recite, among other features: “determining characteristics of the jamming pulses in the at least one of the plurality of RF channels wherein the determined characteristics define at least *interstices between the jamming pulses*; and transmitting the message over the at least one of the plurality of RF channels wherein the message is *transmitted within the interstices* of the jamming pulse” (emphasis added). As the Applicant explains in his specification (see paragraph 0032), the interstices (shown as item 710 in Figure 8) of the jamming pulses are gaps in time in between the pulses of

jamming. Specifically, it can be seen in Figure 8, that the interstices are gaps in the time domain.

No discussion of identifying gaps in time in between pulses of jamming or interference is made in the '513 patent. The portions of the '513 patent cited by the Examiner to support this rejection do not discuss interstices in the time domain in the interference. The first section, Column 7, lines 40-45 discusses a training procedure related to addressing interference, and mentions a "delay spread", but no identification of time slices free from interference is made.

Similarly, the second section referred to, Column 14, lines 35-40, makes a discussion of various signal modulation techniques for use with the signal being sent, including 16 QAM, 64 QAM, and QPSK. None of these modulation techniques have anything to do with intermittent transmission, or with sending data between intermittent interference.

Because Claims 8 and 14 include elements that are not present in the '513 patent, the Applicant requests that the rejection of Claims 8 and 14 be withdrawn by the Examiner. Because there are no other rejections on these two claims, the Applicant requests that these claims be passed to allowance. In addition, because Claim 14 is an independent Claim, and all claims depending from Claim 14 share all of its limitations, the Applicant requests that the rejection of Claims 15-22, which depend from Claim 14, be withdrawn as well and that these claims be passed to allowance.

#### Rejection of Claims 1 and 16

The Examiner has rejected Claims 1 and 16 over the '513 patent. The Applicant notes that both of these claims recite, among other features: "constructing an estimate of the message using at least the received selected subset of the plurality of packets and the estimated quality of the at least one of the plurality of RF channels." As this language explicitly states, this is an estimate of the *message* being transmitted. This is made more explicit by the limitation shown in Claim 18, which recites in part "constructing an

estimate of the message comprises the step of ordering the plurality of blocks of the message to yield the plurality of blocks having the predetermined order”.

The Examiner has suggested that Column 12, lines 15-25 of the ‘513 patent discloses this feature. However, the discussion at this point of the ‘513 patent is discussing the estimation of the quality of a *channel*, not the estimation of a quality of a message. Such a process of monitoring the quality of a channel is discussed in the Applicant’s patent application. (See, for example, paragraph 0031: “As described hereinabove, during transmission of the M packets 610, each of the M channels 400<sub>1</sub>, 400<sub>2</sub>, . . . 400<sub>M</sub> are monitored for quality.”) However, the language of Claims 1 and 16 is referring to estimation of the message carried by the overall signal across all channels, and the discussion cited by the Examiner is related to an estimate of quality of a single channel, which although discussed in the Applicant’s specification, is not the subject matter of the claim element at issue, *i.e.*, estimation of a *message*.

Because Claims 1 and 16 therefore include elements that are not shown in the reference cited by the Examiner, the Applicant respectfully requests that the Examiner withdraw this rejection from Claims 1 and 16 and pass these claims to allowance. In addition, because Claim 1 is an independent Claim, and all claims depending from Claim 1 share all of its limitations, the Applicant requests that the rejection of Claims 2-13, which depend from Claim 1, be withdrawn as well and that these claims be passed to allowance.

#### Rejection of Claims Other Dependent Claims

As noted above, every dependent claim presented includes at least one element inherited from its parent claim that is not disclosed in the ‘513 patent as cited by the Examiner. In addition, these claims include further elements that are not found in the ‘513 reference.

For example, the Examiner has rejected Claims 5 and 19 over the ‘513 reference. However, both of these claims recite in part that “selecting the subset of the plurality of packets comprises selecting the subset of the plurality of packets having a predetermined

probability of error-free reception.” The Examiner suggests that this is disclosed in the ‘513 patent at Column 15, lines 55-65. However, the reference discusses techniques to use additional power to enhance the reception of backward and forward error-correcting codes in the QAM encoded signal. These techniques are not related to selecting subsets of packets, nor are these techniques related to choosing the packets that are associated with less error-prone channels. Therefore, Claims 5 and 19 define subject matter that is not disclosed in the Examiner’s citation.

Similarly, the Examiner suggests that Figure 16 of the ‘513 patent renders Claims 9 and 20 unpatentable. However, Claims 9 and 20 recite in part: “the characteristics comprise at least jamming pulse duration and jamming pulse repetition time”. These “characteristics” are used to “define at least interstices between the jamming pulses”, as noted in the parent claims of Claims 9 and 20 (*i.e.*, Claims 8 and 14, respectively). As noted above in the discussion of Claims 8 and 14, no discussion of interstices in the time domain is made anywhere in the ‘513 patent with regard to avoiding interference, and Figure 16 discloses neither duration nor repetition of interference pulses. Therefore, Claims 9 and 20 define subject matter that is not disclosed in the ‘513 patent.

Finally, the Examiner suggests that the ‘513 reference renders Claims 10, 11 and 17 unpatentable. These claims recite aspects of processing the received subset of packets to retrieve the original message. The Examiner directs the Applicant’s attention to Figure 3 and Column 5, lines 50-55. None of these portions of the document have anything to do with processing received packets, or in fact, with the processing of received data at all. The Examiner describes these steps as “modulating data into packets for transmitting”; however, the elements being claimed are directed to reassembling *received* packets into the blocks of the message, not modulating data for *transmission*. Therefore, Claims 10, 11 and 17 define subject matter that is not disclosed by the Examiner’s citation.

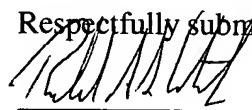
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**CONCLUSION**

In light of the remarks presented herein, the Applicant submits that all outstanding rejections to the pending claims have been overcome, and that the case is in condition for immediate allowance and respectfully requests such action. If any issues remain unresolved, the Examiner is invited to telephone the Applicant's counsel at the number provided below so that a resolution can be most effectively reached.

Respectfully submitted,



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